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INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁷ : G01N 15/14		A1	(11) International Publication Number: WO 00/54026
			(43) International Publication Date: 14 September 2000 (14.09.00)
(21) International Application Number: PCT/DK00/00092		(81) Designated States: AE, AL, AM, AT, AT (Utility model), AU, AZ, BA, BB, BG, BR, BY, CA, CH, CN, CR, CU, CZ, CZ (Utility model), DE, DE (Utility model), DK, DK (Utility model), DM, EE, EE (Utility model), ES, FI, FI (Utility model), GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, NO, NZ, PL, PT, RO, RU, SD, SE, SG, SI, SK, SK (Utility model), SL, TJ, TM, TR, TT, TZ, UA, UG, US, UZ, VN, YU, ZA, ZW, ARIPO patent (GH, GM, KE, LS, MW, SD, SL, SZ, TZ, UG, ZW), Eurasian patent (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GW, ML, MR, NE, SN, TD, TG).	
(22) International Filing Date: 6 March 2000 (06.03.00)			
(30) Priority Data: PA 1999 00317 5 March 1999 (05.03.99) DK			
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(54) Title: DETERMINATION OF SPERM CONCENTRATION AND VIABILITY FOR ARTIFICIAL INSEMINATION

(57) Abstract

A method for the simultaneous determination of the total concentration of sperm cells and the proportion of live sperm cells in a semen sample is provided. By selective staining of live, dead and/or dying sperm cells, for example using one or more fluorochromes, the detection means can distinguish between live, dead and/or dying sperm cells, for example by detection of the fluorescent response from the sperm cells. The selective staining may be performed at room temperature and in concentrations below standard concentrations. The determination may be performed by selective counting of cells of each fluorescent quality for example by using a flow cytometer having internal concentration standard means. Furthermore, the likelihood of fertilizing a female animal with an insemination dose, taken from a semen sample having a known total concentration of sperm cells and a known proportion of live sperm cells, is predicted on the basis of the thus determined total concentration of sperm cells and the proportion of live sperm cells.

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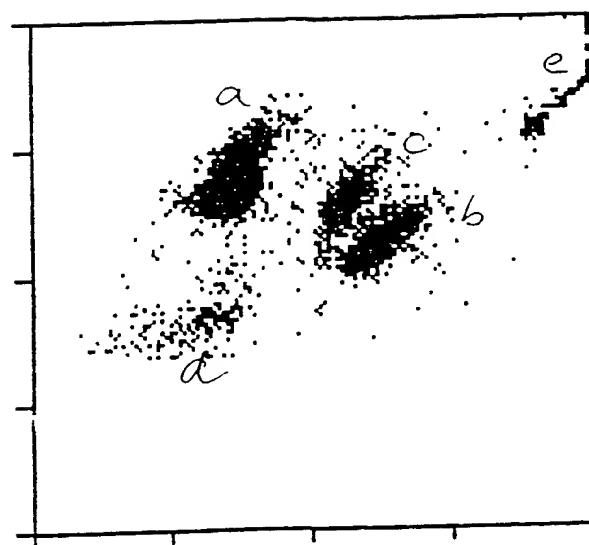


Fig. 1

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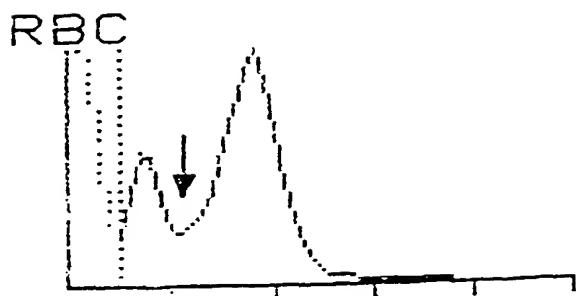


Fig. 2A

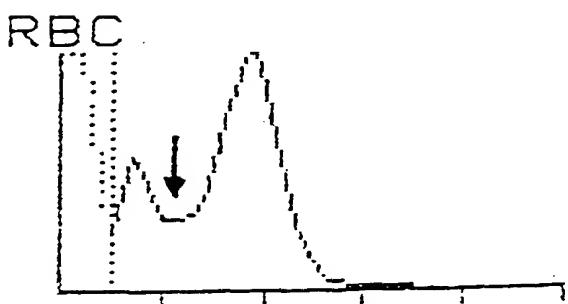


Fig. 2B

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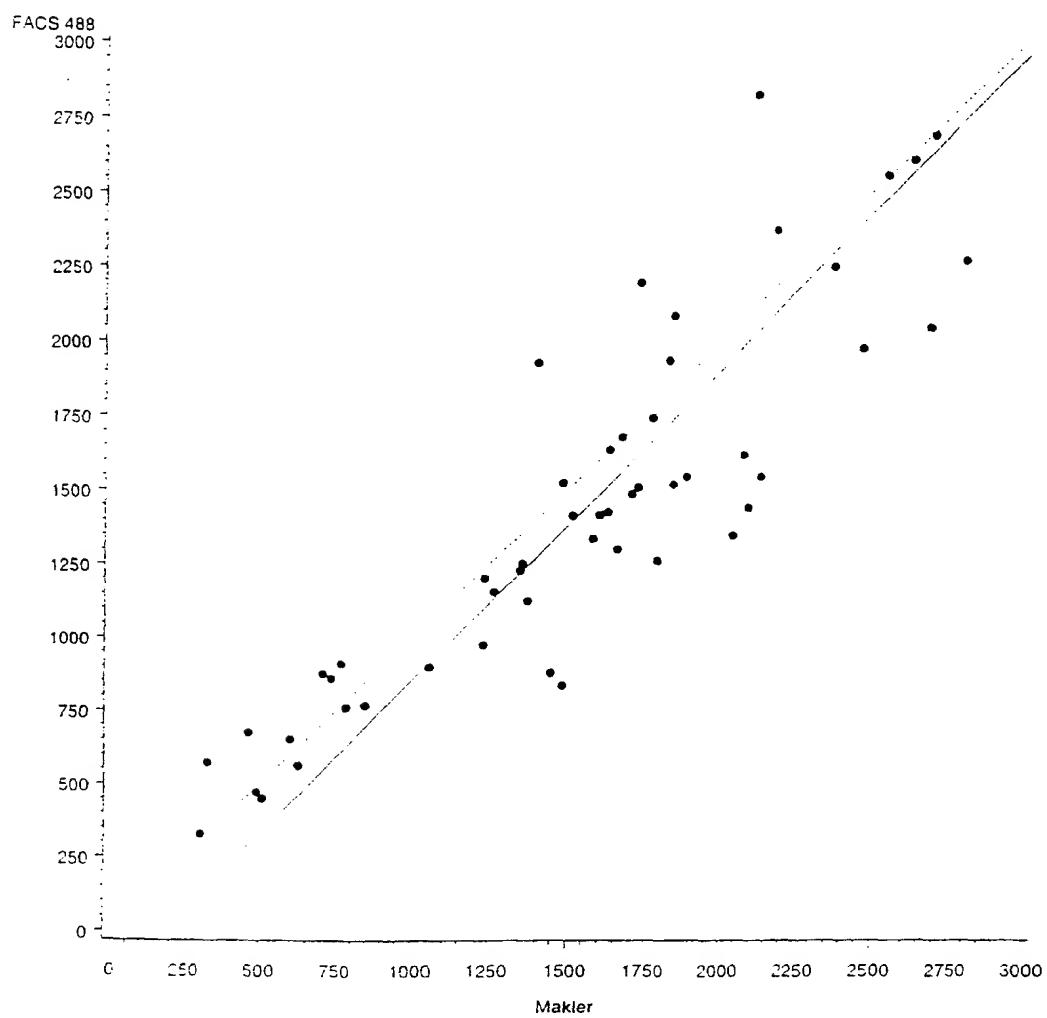


Fig. 3

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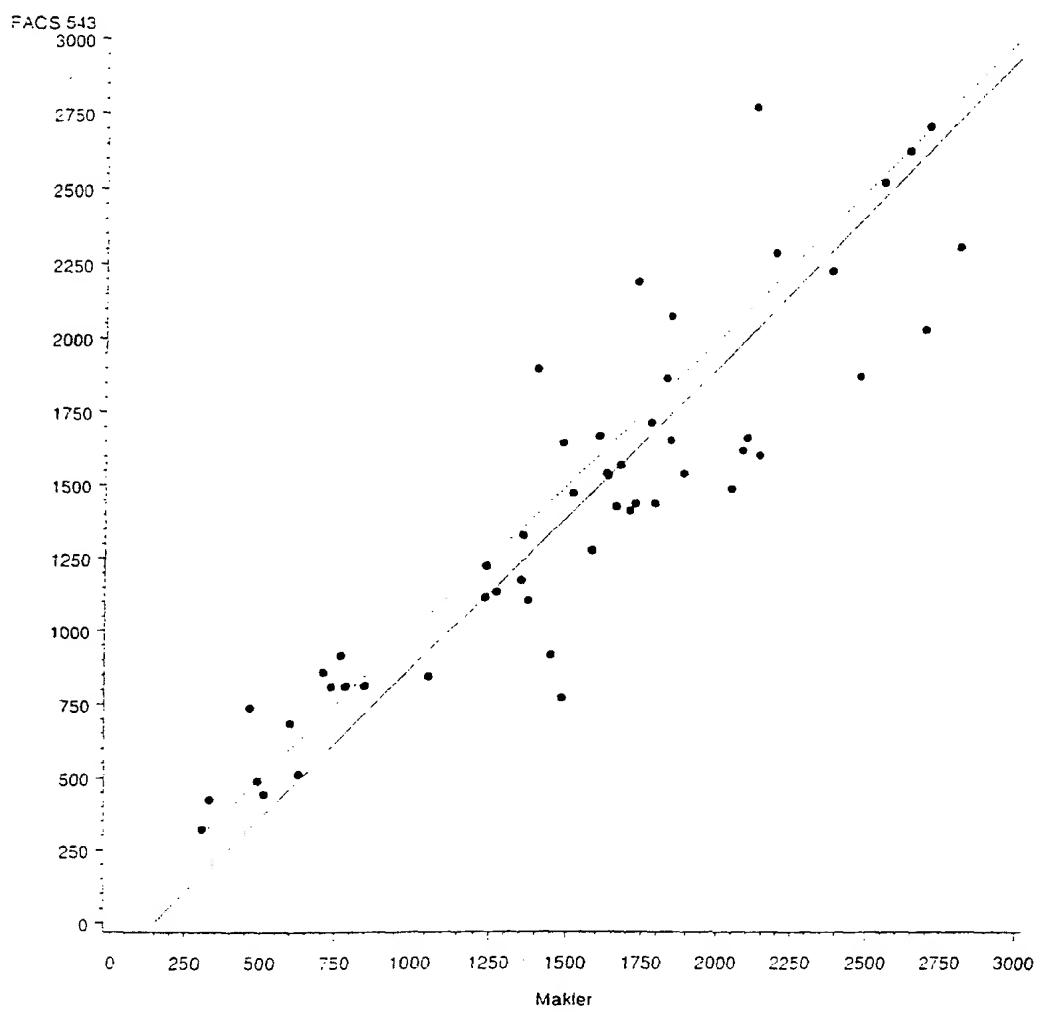


Fig. 4

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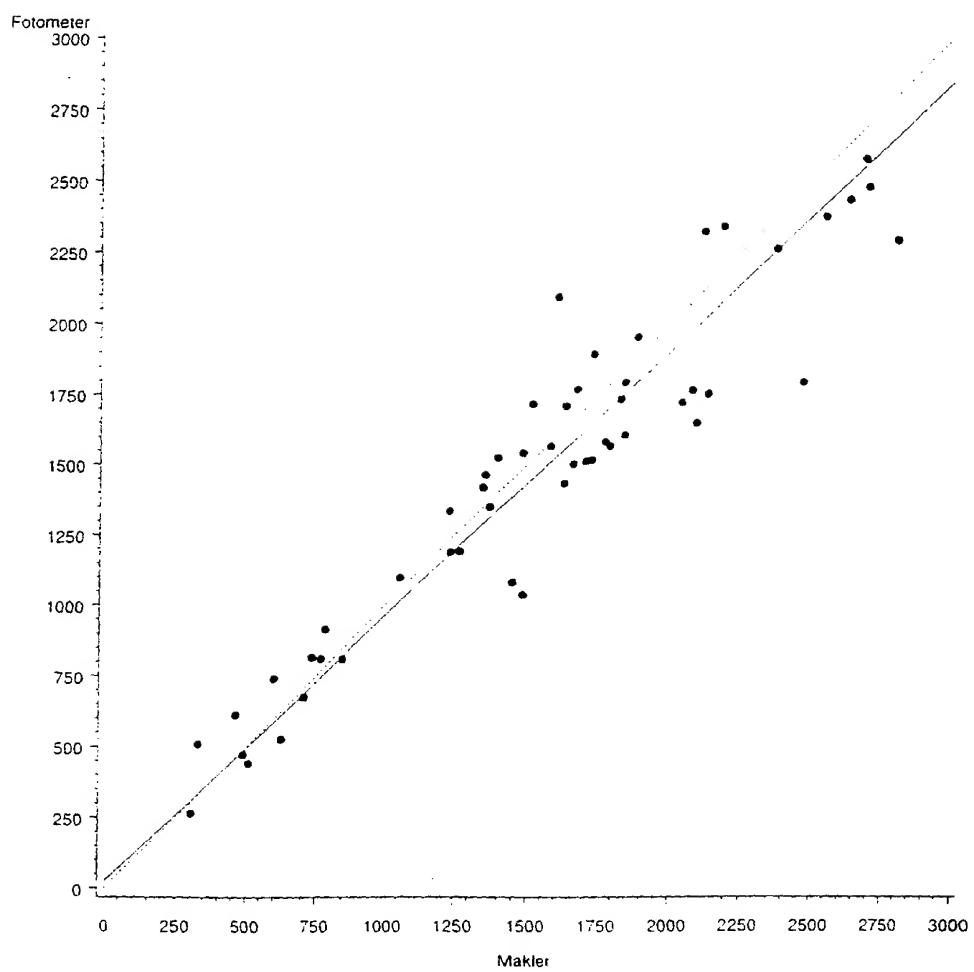


Fig. 5

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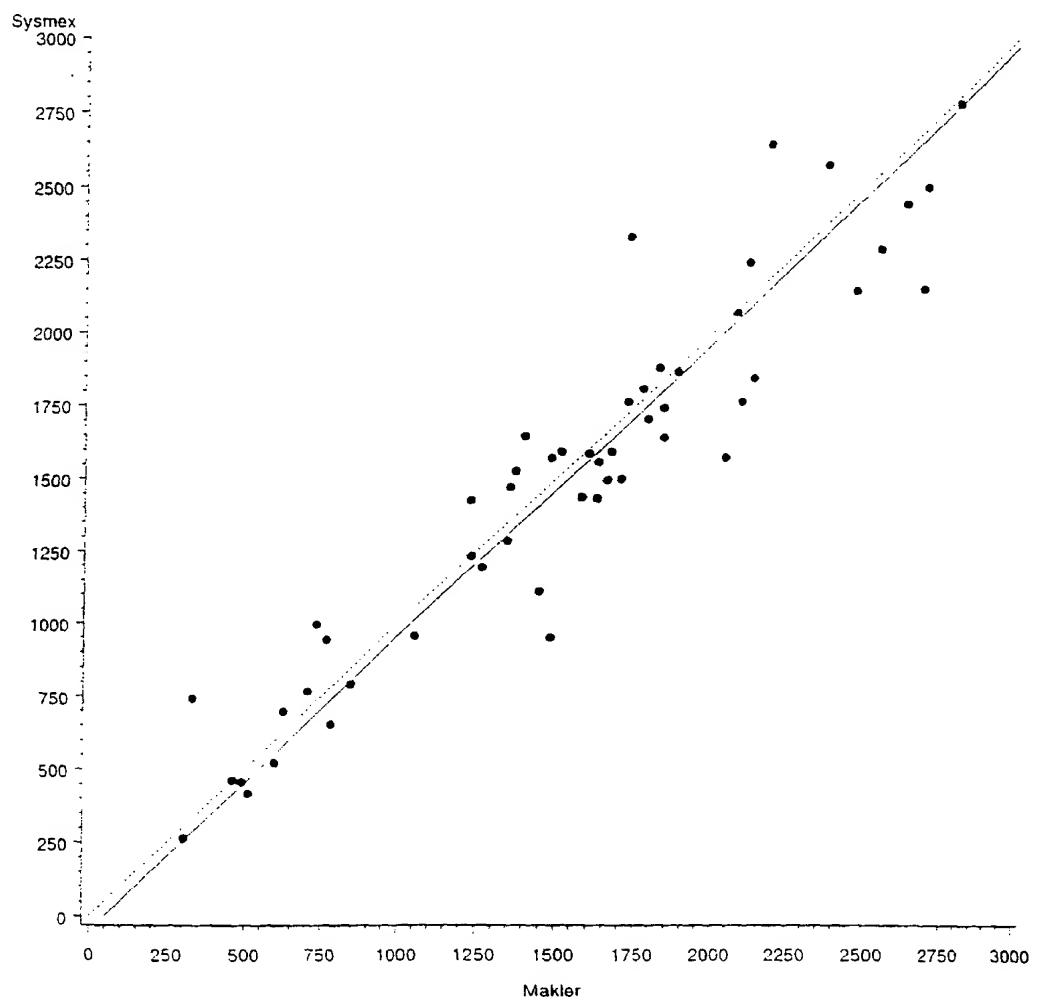


Fig. 6

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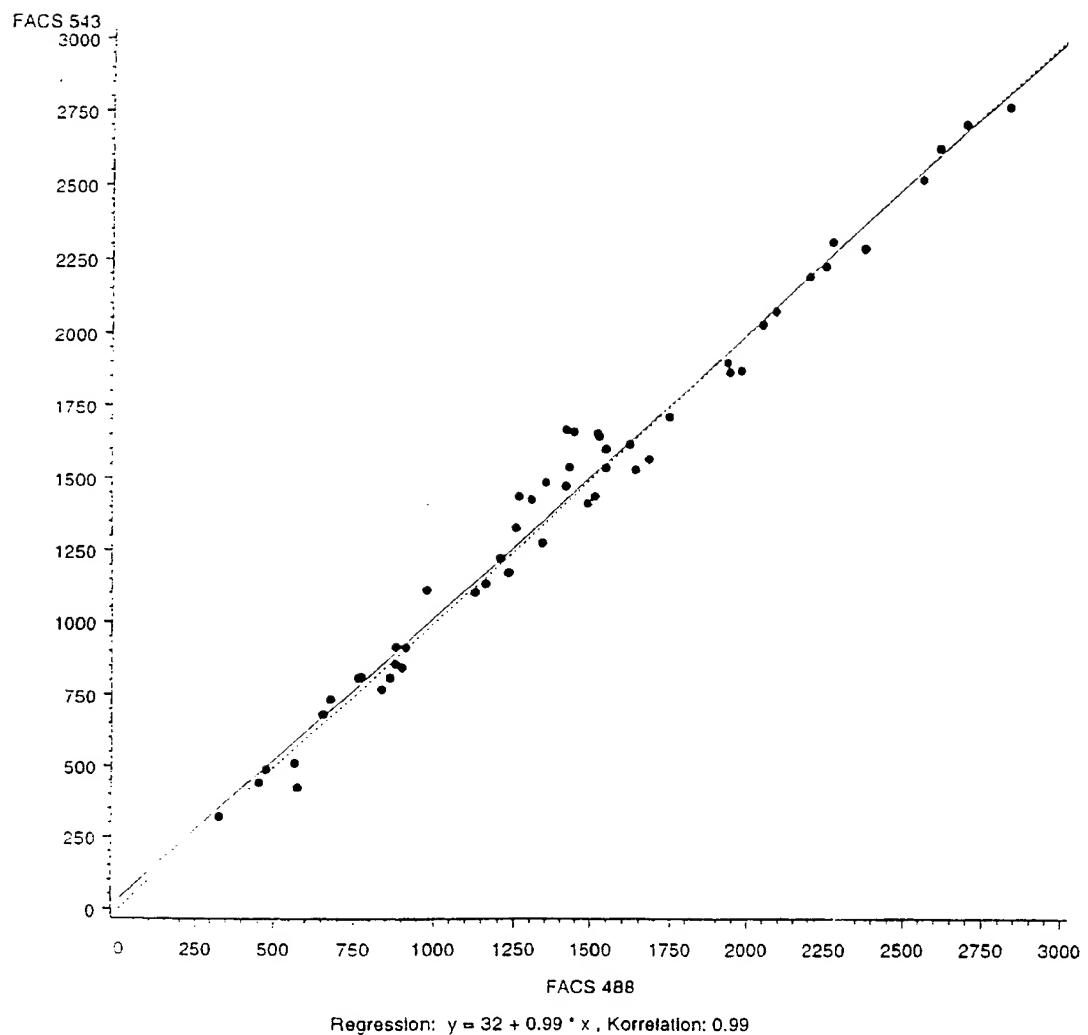


Fig. 7

INTERNATIONAL SEARCH REPORT

International Application No

PCT/DK 00/00092

A. CLASSIFICATION OF SUBJECT MATTER
IPC 7 GO1N15/14

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

IPC 7 GO1N

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practical, search terms used)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	<p>GB 2 214 518 A (INNOFINANCE ALTALANOS INNOVACIOS PENZINTEZET) 6 September 1989 (1989-09-06) figure 1 page 7, line 5 -page 10, line 21 page 5, line 9 -page 6, line 4 page 3, line 10 - line 25 page 2, line 12 - line 15 page 1, line 4 - line 14 ---</p> <p style="text-align: center;">-/-</p>	1,7-10, 33

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Date of the actual completion of the international search

14 June 2000

Date of mailing of the international search report

23/06/2000

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